

REMARKS

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Claims 2-3 are cancelled. Claims 1 and 4-11 are amended. Claims 1 and 4-11 are pending in the application.

I. Rejection under 35 U.S.C. § 112

In the Office Action, at page 2, numbered paragraph 2, claims 6, 8 and 9 were rejected under 35 U.S.C. § 112, 1st paragraph as failing to comply with the written description requirement. This rejection is respectfully traversed.

The Examiner states:

[t]he original disclosure does not describe "a position of at least one element of the adjusting mechanism against the guide face is varied in order to adjust the inclination of the moving platen in a horizontal direction", as claimed in independent claim 1, **and also wherein** each adjusting mechanism includes a rotary roller rotating around the head of a fixing shaft, as claimed in claim 6, **or wherein** each adjusting mechanism includes a plate disposed at the tip of a screw which is screwed to a fixing member, as claimed in claims 8 and 9. In each of these embodiments (as shown and described in relation to Figures 3, 5 and 6), the inclination of the moving platen is adjusted by movement of an element of an adjusting mechanism, but such movement of said element in these embodiments **is not described** as varying of a position of the element against the guide face as claimed in independent claim 1.

Applicants respectfully submit that the original disclosure describes that "a position of at least one element of the adjusting mechanism against the guide face is varied in order to adjust the inclination of the rear platen in a horizontal direction," as recited in independent claim 1, which matches with the original specification. At page 10, lines 17-27, the original specification states that "the inclination of the platen 1 in a horizontal direction is adjusted by independently adjusting the respective rotating positions of two fixing shafts 12a, 12a of the adjusting tools 12...[and] when the rotating position of the fixing shaft 12a is adjusted, the projection amount of the head 12b of the fixing shaft 12a toward the guide face 5 of the guide member 4 is varied." In this scenario, the projection amount of the head toward the guide face is varied, based on the adjustment of the rotating position of the fixing shaft, constitutes varying a position of an element of the adjusting mechanism against the guide face.

With respect to claims 8 and 9, at page 13, lines 8-15, the original specification states

that “[w]hen the screw 32 is turned, the slide plate 33 presses against the slide face 5...[and] the projection amount of the slide plate 33 toward the guide face 5 with respect to the fixing member 30 is adjusted by independently adjusting the screwing amount of the screws 32.” In this scenario, the adjustment of the projection amount of the slide plate toward the guide face does constitute that “a position of at least one element of the adjusting mechanism against the guide face is varied in order to adjust the inclination of the rear platen in a horizontal direction.” Thus, the position of the element (slide plate 33 or roller 36) against the guide face is adjusted.

Accordingly, withdrawal of the § 112, 1st paragraph rejection is respectfully requested.

In the Office Action, at page 3, numbered paragraph 4, claims 3 and 5 were rejected under 35 U.S.C. § 112, 2nd paragraph as failing to comply with the written description requirement. Claim 3 is cancelled. Claim 5 was amended in light of the Examiner’s comments and accordingly, withdrawal of the § 112, 2nd paragraph rejection is respectfully requested.

II. Rejections under 35 U.S.C. § 102

JP '473

In the Office Action, at page 2, numbered paragraph 4, claims 1, 2, 4 and 7 were rejected under 35 U.S.C. § 102(b) as being unpatentable over Japanese Pat. No. 7-195473. Independent claim 1 is amended to incorporate the features of claim 3, particularly in that the guide faces are formed at either one of a rear platen and a base, where the rear platen is disposed opposite to the stationary platen. Therefore, this rejection is respectfully traversed because Japan '473 does not discuss or suggest:

adjusting mechanisms fixed to the other of the rear platen and the base in such a manner as to freely abut against the guide faces;

wherein each adjusting mechanism abuts against each guide face such that the adjusting mechanism may adjust the inclination of the rear platen with respect to the stationary platen in a horizontal direction; and

wherein a position of at least one element of the adjusting mechanism against the guide face is varied in order to adjust the inclination of the rear platen in a horizontal direction,

as recited in amended independent claim 1.

As a non-limiting example, the present invention as set forth in claim 1, for example, is directed to a clamping mechanism for an injection molding machine having a base and a rear platen movable on the base. The rear platen is disposed opposite to a stationary platen. In one embodiment, at least two guide faces are formed at an inside surface of the base. At least two

adjusting mechanisms are fixed to and disposed under the rear platen. Each of the adjusting mechanisms abuts against one of the guide faces and has at least one element, the position where the element comes into contact with the guide face is adjusted so that the inclination of the rear platen with respect to the stationary platen in a horizontal direction is adjusted. In another embodiment, the two guides are formed at a side surface in a lower portion of the moving platen. The adjusting mechanisms are mounted on the base and abut against the guide faces without being supported by the guide faces. When the position of an element of the adjustment mechanism where the element comes into contact with the guide face is adjusted, the inclination of the rear platen is adjusted.

JP '473 shows height-adjustable shoes 5a, 5b provided on a movable platen 2 in a clamping device. JP '473 does not discuss or suggest "guide faces formed at either one of the rear platen and the base; and adjusting mechanisms fixed to the other of the moving platen and the base in such a manner as to freely abut against the guide faces," as recited in amended independent claim 1. JP '473 further does not suggest that "each adjusting mechanism abuts against each guide face such that the adjusting mechanism may adjust the inclination of the rear platen with respect to the stationary platen in a horizontal direction," as recited in claim 1. JP '473 does not discuss or show that the rear platen disposed opposite the stationary platen is adjusted.

Therefore, as JP '473 does not discuss or suggest that "adjusting mechanisms fixed to the other of the moving platen and the base in such a manner as to freely abut against the guide faces; wherein each adjusting mechanism abuts against each guide face such that the adjusting mechanism may adjust the inclination of the rear platen with respect to the stationary platen in a horizontal direction," as recited in amended independent claim 1, claim 1 patentably distinguishes over the reference relied upon. Accordingly, withdrawal of the § 102(b) rejection is respectfully requested.

As to claim 10, JP '473 also does not discuss or suggest "a rear platen movable on the base; and at least two adjusting mechanisms, each adjusting mechanism fixed to and disposed under the rear platen, each adjusting mechanism abutting against one of the guide faces and having at least one element that adjusts against the guide face; wherein each adjusting mechanism is adjustable such that the rear platen is inclined in a horizontal direction relative to a vertical axis of the rear platen," as recited in amended independent claim 10. JP '473 does not discuss or suggest that the adjusting mechanism is adjustable to incline the rear platen in a horizontal direction. Therefore, as JP '473 does not discuss or suggest all the features of

amended independent claim 10, claim 10 patentably distinguishes over the reference relied upon. Accordingly, withdrawal of the § 102(b) rejection is respectfully requested.

Claims 2, 4 and 7 depend directly from claim 1 and include all the features of claim 1, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 4 recites that “each of the guide faces is formed at the inside surface of a base frame forming the base, and each of the adjusting mechanisms is disposed under the rear platen.” Therefore, claims 2, 4 and 7 patentably distinguish over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 102(b) rejection is respectfully requested.

JP '918

In the Office Action, at page 4, numbered paragraph 7, claim 10 was rejected under 35 U.S.C. § 102(b) as being unpatentable over Japanese Pat. No. 62-104918. Claim 10 was amended to incorporate features of original claim 3, specifically in that the moving platen is a rear platen. This rejection is respectfully traversed because JP '918 does not discuss or suggest:

- a rear platen movable on the base;
- at least two guide faces each formed at an inside surface of the base; and
- at least two adjusting mechanisms, each adjusting mechanism fixed to and disposed under the rear platen, each adjusting mechanism abutting against one of the guide faces and having at least one element that adjusts against the guide face;
- wherein each adjusting mechanism is adjustable such that the rear platen is inclined in a horizontal direction relative to a vertical axis of the rear platen,

as recited in amended independent claim 10.

JP '918 discusses a movable platen movable between a stationary platen and an end plate. A vertical adjustment mechanism is provided on the moving platen at the side of the end plate and is used to guide and support the moving platen to allow the moving platen to incline in a vertical direction. JP '918 does not discuss or suggest that adjustment of the rear platen is made through the adjustment mechanism such that the rear platen is inclined in a horizontal direction relative to a vertical axis of the rear platen. JP' 918 discusses that the moving platen 5, which is between a stationary platen 1 and an end plate 2, is adjusted.

Therefore, as JP '918 does not discuss or suggest all the features of amended independent claim 10, claim 10 patentably distinguishes over the reference relied upon.

Accordingly, withdrawal of the § 102(b) rejection is respectfully requested.

Sauerbruch et al.

In the Office Action, at page 4, numbered paragraph 8, claims 1, 2, 7 and 8 were rejected under 35 U.S.C. § 102(a) as being unpatentable over U.S. Patent No. 3,674,400 to Sauerbruch et al. Please note that independent claim 1 is amended to incorporate the features of claim 3, which was not rejected under Sauerbruch.

This rejection is respectfully traversed because Sauerbruch does not discuss or suggest "adjusting mechanisms fixed to the other of the rear platen and the base," and that "each adjusting mechanism abuts against each guide face such that the adjusting mechanism may adjust the inclination of the rear platen with respect to the stationary platen in a horizontal direction; and wherein a position of at least one element of the adjusting mechanism against the guide face is varied in order to adjust the inclination of the rear platen in a horizontal direction," as recited in amended independent claim 1.

Sauerbruch discusses a clamping mechanism that includes a shoe mounted between a moving platen and a guide rail. The shoe aids in adjusting the vertical distance between platen 5 and bearing strip 11. Sauerbruch discusses a moving platen 5 which carries a second mold half and a frame portion 2 which may be regarded as a fixed platen and which carries a stationary mold half 3. Sauerbruch does not suggest an adjusting mechanism that adjusts against a guide face such that the inclination of the rear platen is adjusted in a horizontal direction.

Therefore, as Sauerbruch does not discuss or suggest all the features of amended independent claim 1, claim 1 patentably distinguishes over the reference relied upon. Accordingly, withdrawal of the § 102(b) rejection is respectfully requested.

As to claim 10, Sauerbruch does not discuss or suggest "at least two adjusting mechanisms, each adjusting mechanism fixed to and disposed under the rear platen, each adjusting mechanism abutting against one of the guide faces and having at least one element that adjusts against the guide face; wherein each adjusting mechanism is adjustable such that the rear platen is inclined in a horizontal direction relative to a vertical axis of the rear platen," as recited in amended independent claim 10. Sauerbruch does not discuss the inclination of the rear platen. Therefore, as Sauerbruch does not discuss or suggest all the features of amended independent claim 10, claim 10 patentably distinguishes over the reference relied upon. Accordingly, withdrawal of the § 102(b) rejection is respectfully requested.

Claims 2, 4, and 7 depend directly from claim 1 and include all the features of that claim, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 7 recites that "each of the adjusting mechanisms comprises a fixing member having a slope and a slide plate having a slope adapted to come into contact with the slope of the fixing member, said fixing member being attached to said base or said rear platen in a manner such that the slope of the fixing member is opposite one of the guide faces, and said slide plate being attached to the fixing member so that the face of the slide plate, opposite the slope thereof, comes into contact with said guide face, allowing the slide plate to penetrate between the guide face and the slope of the fixing member." Therefore, claims 2, 4 and 7 patentably distinguish over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 102(b) rejection is respectfully requested.

III. Rejections under 35 U.S.C. § 103

JP '473 or Sauerbruch in view of Shima

In the Office Action, at page 6, numbered paragraph 12, claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '473 or Sauerbruch in view of U.S. Patent No. 4,571,169 to Shima et al. This rejection is respectfully traversed. Claim 3 was cancelled, but claim 3 was incorporated into independent claim 1, so amended independent claim 1 will therefore be discussed below.

As discussed above, JP '473 and Sauerbruch do not discuss or suggest all the features of amended independent claim 1, particularly in that the adjusting mechanisms cited do not adjust the inclination of the rear platen in a horizontal direction. Applicants respectfully submit that Shima fails to make up for the deficiencies in JP '473 and Sauerbruch.

Shima discusses a movable mold platen and a bearing platen each having slide metals. Shima does not discuss or suggest "adjusting mechanisms fixed to the other of the rear platen and the base in such a manner as to freely abut against the guide faces; wherein each adjusting mechanism abuts against each guide face such that the adjusting mechanism may adjust the inclination of the rear platen with respect to the stationary platen in a horizontal direction; and wherein a position of at least one element of the adjusting mechanism against the guide face is varied in order to adjust the inclination of the rear platen in a horizontal direction," as recited in amended independent claim 1.

The Examiner's indicates in the Advisory Action that Shima et al. clearly shows wedge-type adjusting mechanisms for both the moving platen 7 and the rear/bearing platen 8. Shima

does not show, discuss or suggest that slide metals 46, 47 are used to adjust the bearing platen 8 in a horizontal direction (rotation about a vertical axis V as shown in Figs. 1A and 2A of the present invention).

Shima discusses a clamping mechanism that includes slide metals 46 and 47 that are provided underneath movable platen 7 and bearing platen 8. Bearing platen 8 and movable platen 7 are provided between a fixed platen 2 and a guide frame 3. As there is no description of slide metal 46, it is unclear as to how the Examiner interprets that slide metals 46, 47 may be used to adjust platen 8 in a horizontal direction. Although the slide metals 46, 47 of Shima enable the height of the platens 7 and 8 to be adjusted, the slide metals 46, 47 do not allow the platens 7, 8 to be adjusted in a horizontal direction. The Shima reference is completely silent as to the slide metals 46, 47 being able to adjust the platens 7, 8 in a horizontal direction.

In contrast, the adjusting mechanisms of claim 1, for example, are disposed on both sides at the lower surface of the platen in such a manner as to abut against the right and left guide surfaces 5 of the base 2, as shown in Fig. 1A or to abut against the right and left guide surfaces of the lower portion of platen 1, as shown in Fig. 2A. The guide surfaces against which the adjustment mechanism abuts are equivalent to faces parallel to the drawing sheet of Fig. 1 of Shima. However, in Shima, slide metals 46 and 47 do not abut against right and left guide surfaces, or surfaces parallel to the drawing sheet of Fig. 1 of Shima. As such, Shima does not suggest allowing either platen 7 or 8 to incline the platens 7, 8 in a horizontal direction. That is, Shima does not suggest that platens 7 or 8 rotate in a horizontal plane which is perpendicular to the plane of the drawing sheet of Fig. 1 of Shima about a vertical line. In contrast, the present invention provides for the adjustment mechanisms to abut against the guide surfaces such that the inclination of platen 1 in a horizontal direction (that is, rotation about a vertical axis V) may be adjusted. The slide plates 46, 47 of Shima do not abut against any guide surfaces in order that platen 7 or 8 is able to be adjusted in a horizontal direction, when a position of at least one element of the adjusting mechanism against the guide face is varied in order to adjust the inclination of rear platen in a horizontal direction, as recited in claim 1, for example.

In establishing a *prima facie* case of obviousness, it is necessary to teach all the features of the claimed invention. The Examiner asserts that 46, 47 are adjusting mechanisms, but does not cite the reference in establishing that 46, 47 provide for any adjustment of the bearing platen 8. Mention is made only in that 46, 47 are slide metals. Shima does not recite that 46, 47 are used for adjustment purposes.

Shima specifically does not suggest that the slide metals 46, 47 allow for a position of an

element of one of the slide metals 46, 47 against a guide face to be varied in order to adjust the inclination of the rear platen in a horizontal direction. Even assuming, *arguendo*, that 46, 47 may be considered to be adjusting mechanisms, Shima is completely silent as to varying a position of an element of 46, 47 against a guide face in order to adjust the inclination of bearing platen 8 in a horizontal direction.

Further, the motivation cited by the Examiner is inadequate to suggest such a combination. The Examiner alleges that "it would have been obvious to one of ordinary skill in the art at the time of the invention to modify either JP '473 or Sauerbruch by providing the adjusting mechanisms associated with the rear platen, as disclosed in Shima et al., in order to permit adjustment of the inclination of either or both of the movable mold platen and the rear platen." However, Shima does not discuss an adjusting mechanism – merely the use of slide metals. Shima makes no such suggestion that the slide metals are used to adjust the inclination of a rear platen in a horizontal direction. As there is no adjusting mechanism in Shima that provides for such adjustment, it is unclear as to how the combination of JP '473 or Sauerbruch and Shima would have been obvious to one of ordinary skill in the art to teach all the features of amended independent claim 1.

Further, adjustment of the inclination of the rear platen is entirely the purpose of the present invention as claimed in claim 1, for example. In establishing a *prima facie* case of obviousness, the motivation must be found in the prior art and may not be based on the applicant's own disclosure. See M.P.E.P. § 2144. The motivation cited is based on the applicant's own disclosure in that the adjusting mechanisms as set forth in claim 1 are used to adjust the inclination of the rear platen. The motivation cited of "permit[ting] adjustment of the inclination of either or both of the movable mold platen and the rear platen" is exactly that which was set forth in both the claims and the specification. The motivation cited by the Examiner is therefore entirely inadequate to suggest the combination of JP '473 or Sauerbruch and Shima.

Therefore, as the combination of JP '473 or Sauerbruch and Shima does not suggest all the features of amended independent claim 1 and the motivation to combine the references is inadequate, amended claim 1 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

JP '473, JP '918 and Sauerbruch

In the Office Action, at page 6, numbered paragraph 13, claims 5 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over any one of JP '473, JP '918, and Sauerbruch. This rejection is respectfully traversed.

As discussed above, JP '473, JP '918 and Sauerbruch do not discuss or suggest all the features of amended independent claim 1, specifically in that the adjusting mechanisms do not abut against each guide face such that the adjusting mechanism may adjust the inclination of the rear platen with respect to the stationary platen in a horizontal direction," as recited in amended independent claim 1, claim 1 patentably distinguishes over the references relied upon. It would not have been obvious to one of ordinary skill in the art to modify any one of JP '473, JP '918 and Sauerbruch to teach all the features of amended claim 1. Therefore, claim 1 patentably distinguishes over the references relied upon. Claim 5 depends directly from independent claim 1, and includes all the features of claim 1, plus additional features that are not discussed or suggested by the references relied upon. Claim 5 therefore patentably distinguishes over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

As to amended independent claim 11, in a similar argument to that with respect to claims 1 and 10, JP '473, JP '918 and Sauerbruch do not, singly or in combination, discuss or suggest all the features of amended claim 11. Particularly, JP '473, JP '918 and Sauerbruch do not suggest "at least two guide faces each formed at a side surface in the lower portion of the rear platen; and at least two adjusting mechanisms, each adjusting mechanism mounted on the base, each adjusting mechanism abutting against one of the guide faces and having at least one element that adjusts against the guide face; wherein each adjusting mechanism is adjustable such that the rear platen is inclined in a horizontal direction relative to a vertical axis of the rear platen." Neither of JP '473, JP '918 or Sauerbruch discuss adjustment of the adjusting mechanism to incline the rear platen in a horizontal direction relative to the vertical axis of the rear platen.

Therefore, as JP '473, JP '918 or Sauerbruch, either singly or in combination, do not discuss or suggest all the features of amended independent claim 11, claim 11 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

Conclusion

In accordance with the foregoing, claims 2-3 have been cancelled. Claims 1 and 4-11 have been amended. Claims 1 and 4-11 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

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Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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